

XXVI. *Descriptions of some new species belonging to the genus Lycæna.* By the Rev. R. P. MURRAY, M.A.

[Read 2nd November, 1874.]

*Lycæna Chinensis*, n. sp. (Pl. X. fig. 5.)

Wings brown above, with a conspicuous submarginal orange band, equally marked on both wings, and a faint black streak closing cell. In the forewing the orange band is divided by the veins into almost square spots: in the hindwing the band is composed of a series of contiguous crescents, seated upon a row of black spots. Fringe white, interrupted by brown.

*Underside*: pale grey-brown, the orange band as conspicuous as above, continuous in both wings. *Forewing*: no spot between base and disco-cellular spot. Beyond middle is a discal row of seven spots, twice bent at a right angle, so that the sixth is immediately below the disco-cellular spot: the costal spot is small and indistinct. All these spots are white-ringed. The orange band is edged on both sides by a row of spots, the innermost row consisting of larger, but less well-defined spots than the outer.

*Hindwing*: a basal row of four spots, a disco-cellular spot, and a discal row of eight spots, much curved and angulated, all white-ringed. The orange band is edged as on forewing by rows of spots, but in this case the spots of the outer row are larger than those of the inner. In both wings the fringe, which is spotted, is preceded by a narrow black line.

Expands 1" 3".

*Hab.*—North China.

This very distinct species is (judging from the markings of the underside) most nearly allied to *Lyc. Pylæon*, F., while the upper side reminds one strongly of *L. Astrarche*, Bgstr. (more commonly known as *L. Medon* or *Agestis*).

*Lycæna pulchra*, n. sp. (Pl. X. figs. 7, 8.)

♂. Violet-blue with a narrow brown edging along the hind-margin of forewing, which is replaced in the hindwing by a distinct dark brown line, edged internally towards anal angle by a white line. Inner margin of hindwing white. Two or three blue-black dots towards anal angle of hindwing. Fringe dirty white. Hindwings with a rather long filiform tail, tipped with white.

On the underside this insect closely resembles African specimens of *L. Telicanus*,—indeed it is not easy to discover any constant differences. The ground colour of the wing seems, however, whiter, and the fulvous crescents surmounting the metallic spots at anal angle of hindwing more conspicuous than in that species.

♀. Brown, shot with blue over the bases of wings. *Forewing*: a conspicuous spot closing cell, and a somewhat angulated row of spots beyond it, one of which is situated almost immediately below the disco-cellular spot. All these spots are edged on both sides with white. Between the disco-cellular spot and the uppermost of the row of spots is a small brown cloud.

*Hindwing*: a basal transverse band and large disco-cellular spot, both edged with white: a band of white lunules beyond middle, and a marginal series of brown lunules (the two next anal angle black and conspicuous), surmounted by whitish crescents. Underside as in ♂.

Expands: ♂ 11"—1" 1"; ♀, 1" 1"—1" 2".

*Hab.*—West Africa.

This form so closely resembles on its underside the very variable *Lyc. Telicanus*, Lang., that I was for a long time doubtful of the propriety of describing it as a separate species, but the great difference in the colouring of the upper side of the male, combined with the constant smaller size of the specimens, and some difference, difficult to describe, in the shape of the wings, have now led me to consider it as distinct.

The foregoing description has been made from 3 ♂ and 2 ♀ specimens in my collection.

*Lycæna lineata*, n. sp. (Pl. X. fig. 9.)

Closely allied to *L. Palmyra*, Feld., from which it hardly differs on the upper side, except in having the fringe unspotted.

*Underside*: *Forewing* brown, marked on the centre by a conspicuous white blotch, commencing narrowly on subcostal vein, and abruptly widening on third median nervule, so that it is three or four times as wide on the inner margin as at its commencement near the costa. The white is continued narrowly along inner margin to base. Two white streaks, forming the margins of an obsolete band, cross the wing near base, and the dark disco-cellular streak, which is partly obliterated by the white blotch, is also internally edged with white. Beyond the blotch is a curved row of indistinct darker spots, externally edged with white. Along the hind-margin is a row of brown lunules, surmounted by a double series of white crescents, the space between them being darker than the ground colour. A thin black line precedes the fringe, which is unspotted.

*Hindwing*: brown, crossed by numerous broken white lines, forming the margins of almost imperceptible transverse macular bands. These appear to consist of two basal bands, a disco-cellular mark, and a band beyond the middle, the last mentioned being darker and more distinct, and commencing with a white spot on costa, containing a small black central dot. Hind-marginal markings as in forewing, but the two lunules nearest anal angle are black, marked on their outer edge with metallic scales, and each surmounted by a fulvous lunule. Fringe indistinctly spotted. Hindwings tailed.

Expands 1"—1" 1".

*Hab.*—Queensland.

*Lycæna Indica*, n. sp. (Pl. X. figs. 2, 3.)

♂. Wings blue. *Forewing* with a narrow costal and somewhat broad hind-marginal brown border. *Hindwings* with a similar brown border, broad on costa, narrow on hind-margin.

*Underside*: grey-brown: *forewing*, no spot between base and disco-cellular spot, which is brown, edged on both sides by white: a conspicuous discal row of six black spots, ringed with white: of these the lowest is less distinct, and is geminated. A double hind-marginal series of brown lunules, of which the inner is surmounted by whitish, and the outer edged on both sides by the same colour. *Hindwing*: a basal row of three spots, a disco-cellular spot, and an angulated discal row of eight spots, all brown, narrowly

surrounded by whitish. Hind-marginal markings as on forewing. Fringe pale brown, unspotted.

♀. Wings above brown, blue at base. Underside as in ♂.

Expands: ♂ 9"—10"; ♀ 9"—11".

*Hab.*—Allahabad, India.

This insect seems to be very common in the neighbourhood of Allahabad, as I possess a considerable series, collected there by my brother. I have failed to find it anywhere described, and Mr. Moore has also expressed his belief that it is a new species. It belongs to the *Lysimon* group.

*Lycæna parva*, n. sp. (Pl. X. fig. 1.)

Wings above glossy brown. *Forewing* with a very faintly marked disco-cellular streak, and a narrow hind-marginal edging of darker brown. Fringe pale brown. *Hindwing* with a fine black line before the fringe, preceded by a white line. Three conspicuous orange spots on hind-margin towards anal angle: each marked exteriorly by a black spot. Fringe paler than on forewing.

*Underside*: wings rather dark grey-brown. *Forewing* with a black, white-ringed spot closing the cell, and a discal row of six similar white-ringed spots, closely followed by a transverse series of white streaks. Along the hind-margin is a series of brown lunules, only slightly darker than the ground colour, edged on both sides by white. A very fine brown line precedes the fringe.

*Hindwing*: a basal transverse row of four black, white-ringed spots, two white streaks forming the margins of the obsolete disco-cellular spot, and a discal row of eight spots only indicated by thin white edgings, except the costal spot, which is black: this row is followed, as on forewing, by a series of rather indistinct white marks: hind-marginal markings as on forewing, except that the three lunules nearest anal angle are black, almost completely surrounded by metallic scales, and surmounted by orange lunules. Fringe glossy brown.

Expands 8".

*Hab.*—Diamond Fields, South Africa.

This species is very closely allied to *L. Trochilus*, Frey, of which it is possible that it is only an accidental variety. I think, however, that it is distinct, on account of its much smaller size, and also from its presenting in both wings a

series of white markings immediately beyond the discal row of spots. I have never seen this in *L. Trochilus*, which is, besides, a species little liable to vary.

*Lycæna Felderi*, n. sp. (Pl. X. figs. 4, 6.)

♂. Wings brown above, showing in some lights a dull violet tinge. A narrow, dark-edging line before the fringe, which is brown, indistinctly spotted with darker. Hindwings tailed.

*Underside*: wings lighter brown. *Forewings*: a transverse band near base, an oblong spot closing cell, and a submacular band beyond middle, strongly broken on second median nervule. All these markings are of the ground colour, thinly edged by darker brown, and surrounded by white. An indistinct row of brown spots, surmounted by brown crescents, along hind-margin. *Hindwings*: markings similar to those on forewings, but more irregular. The spot above root of tail is black, spotted with golden, and surmounted by a fulvous crescent. There are a few additional golden scales at anal angle. Fringe more distinctly spotted than on upper-side.

♀. Wings brown, forewings shot with vivid blue at base. Hindwings with a marginal series of spots, indistinctly surmounted by blueish crescents. The spot above root of tail is largest and blackest. The line before the fringe is on hindwings preceded by a narrow white line, most distinct towards anal angle. *Underside*: as in ♂, but the ground colour more ochreous, and the markings, especially those along the hind-margins of both pairs of wings, much more distinct. The fine dark line before the fringe is well marked on all the wings.

Expands 10"—12".

*Hab.*—Queensland.

This species is allied to *L. Macrophthalma*, Feld., but differs materially in possessing a submacular band between the cellular spot and the base of the wing. I possess a single specimen (♂) of a closely allied species from Borneo, which will, I think, ultimately require description.

*Lyc. Felderi* belongs to the section *Lampides*, Hübn., which is distinguished by the possession of a tailed hindwing, and by the presence of one or two metallic spots at the anal angle of the hindwing, on the underside. I cannot consider that these spots afford a generic character: they are strongly of the nature of a colour distinction, which

is seldom to be relied on: moreover, they present a very variable character: e. g., *Lyc. Ceraunus*, F., possesses but one of these spots on each hindwing: while specimens in my cabinet, which were referred by Mr. Butler to his *L. Zachæina*, only differ from *L. Ceraunus* by possessing two of these spots. *L. Cassius*, Cram., possesses two spots: *L. pseudo-Cassius*, Murray, has three. I need only refer in addition to the long list of species belonging to the *Argus* and *Trochilus* groups, in which these spots form a more or less complete marginal edging to the wing, in support of my opinion that these markings should cease to be relied on as of generic value.

The tailed hindwings appear at first sight of more importance, being certainly, to some extent, a structural character; but a careful consideration of many interesting species, both in *Lycæna* and the allied genus *Chrysophanus*, has forced me, somewhat reluctantly, to the conclusion that this, too, must be abandoned as a generic character.

In *Chrysophanus* the hindwing ordinarily presents a more or less marked projection on the first median nervule, which, however, cannot be designated a tail. In *C. Orus*, Cram., from South Africa, this projection is wanting, so that the outline of the hindwing is rounded. On the other hand, we are unexpectedly met, in Persia, by a group of species, which are undoubtedly true *Chrysophani*, but which possess a tail, at least as well developed as in any known species belonging to the so-called genus *Lampides*. These species are named *C. Lampon*, Led., *C. Phænicurus*, Led., and *C. Carpius*, Led. The last two are very distinct species, to which it is unnecessary to refer further. But *C. Lampon* is so closely allied to *C. Ochimus*, H.-S., that it can with difficulty be distinguished from it, except by the possession of a long filiform tail. This curious tendency to produce tailed forms seems confined to Persia, so far as the genus *Chrysophanus* is concerned (the Persian *Lycæna* do not share the character), since none either of the European or Himalayan species present the character, and the only new *Chrysophanus* discovered by M. Fedtchenko in Eastern Turkestan (*C. Solskyi*) is equally destitute of a tail.

But to proceed to the genus *Lycæna*. Here we find, roughly speaking, three groups: those with no tails, those with well developed tails, and those with very short tails. Of these latter, *L. Parsimon*, Fabr., may be accepted as the representative. It is closely allied to other species



(such as *L. Asopus*, Hopf.) which are tailless; in fact, while *L. Parsimon* usually possesses tails, some races of the species appear to be destitute of them (*vide* Mr. Trimen's very interesting paper on the butterflies of Basuto-land, in Trans. Ent. So. Lond. 1870, p. 361). Again, *L. Mindora*, Feld., is tailed; but the closely allied *L. Arruana*, Feld., is destitute of such an appendage. *L. Cassius*, Cram., has no tail, while my *L. pseudo-Cassius*, which is so closely allied to it that Mr. Hewitson considers it not to be distinct, in spite of the enormous difference in locality (Queensland, as opposed to tropical America), has a well developed tail.

In the *Danis* group (I only use the word for convenience) the presence or absence of a tail appears immaterial. Witness *L. Ilissus*, Feld., tailed; *L. Taygetus*, Feld., tailless. The foregoing observations appear to me sufficient to prove that the characters in question, although still relied on by some Entomologists as of generic value, can in no way be depended on; and that if the genus *Lycæna* is to be divided, we must find some better character on which to found our new genera.

I will only add further that the two characters on which I have just remarked are by no means always to be found united. Many species which possess metallic spots at the anal angle of the hindwing are not tailed, e. g., *L. Jesous*, Guér, *L. Cassius*, Cram., and *L. Ceraunus*, Fabr.; while more rarely tailed species are destitute of the metallic spots. This is the case with some species of the *Castalius* group.

But for Mr. Moore's repeatedly expressed opinion, that the insect described in this paper as *L. Indica*, was undescribed, I should have been inclined to doubt whether it were distinct from his *L. Sangra*.